

Application No. 10/727,472  
Filed: December 4, 2003  
TC Art Unit: 1775  
Confirmation No.: 6264

### REMARKS

Claims 1-23 are currently pending. Claims 11-20 and claim 23 have been withdrawn from consideration. Claims 1-7, 9, 10, and 22 have been rejected under 35 U.S.C. § 102(b). Claims 1-10, 21, and 22 have been further rejected under 35 U.S.C. § 112, first and second paragraphs. Claims 1, 4, 6, 9, and 21 have been amended.

Applicants appreciate the Examiner's grant of a telephone interview on December 1, 2005 in view of which Applicants respectfully request reconsideration of the pending application in view of the foregoing amendments and the following reasons. The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

### 35 U.S.C § 102(b) REJECTIONS

Claims 1-7, 9, 10, and 22 have been rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent Number 6,187,123 to Chenier, et al. ("Chenier"). The Applicants respectfully traverse these rejections in view of the above amendments and for the reasons provided below.

According to claim 1, the present invention provides a composite structure with a porous core made of a refractory having a pore volume content of greater than or equal to 80%. The Examiner asserts that the Chenier reference "discloses the composite structure comprising the same structure and made by the same SiC materials as claimed, the same structure would also have the same characteristics of the claimed structure." The Applicants respectfully disagree. More particularly, the Applicants assert that the Chenier reference is completely silent about "pore volume content" and the structure having a porous core. Indeed, the Examiner did not and cannot cite to any mention of a "pore volume content" or the structure having a "porous core" anywhere in the Chenier reference.

Furthermore, referring to FIG. 6, the invention as claimed provides that the preform (5) core lies between two intermediate layers (6a, 6B) and a ceramic shell (7a, 7b). The intermediate layers comprise a "ceramic phase [e.g., a ceramic precursor polymer] and a refractory solid filler" that penetrate the surface of the refractory of the preform (5) to reduce porosity. That portion of the preform (5) that is not penetrated by the ceramic phase and refractory solid filler retains the initial pore volume content

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of the preform, i.e., greater than 80 percent. See, e.g., Specification, page 19, lines 18-25.

Chenier, however, does not teach, mention or suggest intermediate layers comprising a "ceramic phase and a refractory solid filler". Moreover, Chenier does not teach, mention or suggest that a core portion of the preform (5) retains its porosity. On the contrary, Chenier teaches that the core is infiltrated by a SiC vapor deposition, which results in filling the porosity of the entire core. Accordingly, Chenier teaches lowering the porosity of the core rather than maintaining a porous core with a pore volume content at or above 80 percent. Hence, Chenier teaches away from the invention as claimed.

Accordingly, the Applicants believe that the grounds for rejection are overcome and the rejections should be withdrawn. Moreover, the Applicants believe that the application is in condition for allowance.

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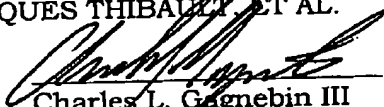
SECTION § 112, FIRST AND SECOND PARAGRAPH REJECTIONS

The Examiner has rejected claims 1-10, 21, and 22 under 25 U.S.C. § 112, first and second paragraph. Claims 1, 4, 6, 9, and 21 have been amended. Accordingly, the Applicant believes that the grounds for rejection are moot and the application is in condition for allowance.

Respectfully submitted,

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